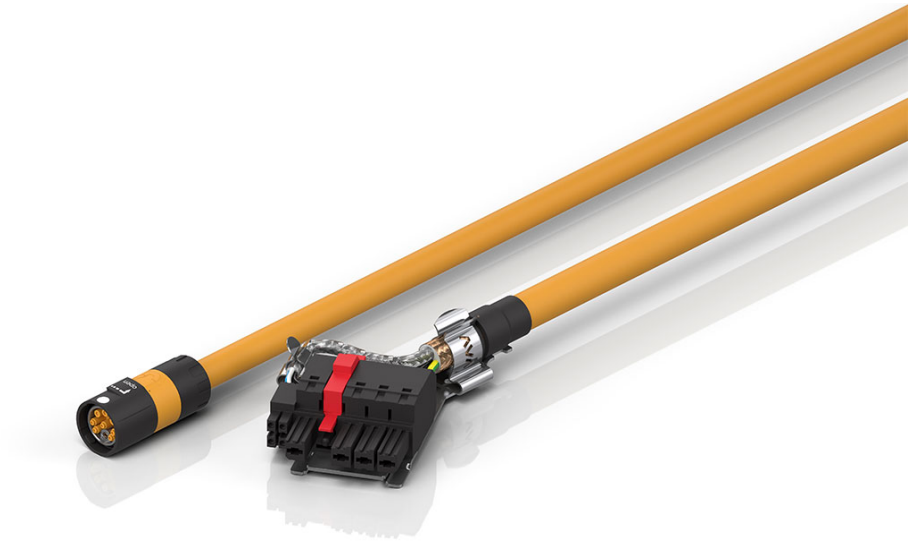
ZK4800-8062-xxxx | Motor connection cable 1 mm² with itec® plug, torsionable

itec® (Series 915), plug, straight, female, Power: 3+PE, Signal: 5 – Pitch dimension 7.62 mm, plug, 30°, female, 4-pin



Plugs

Electrical data	Head A	Head B
Rated voltage (power)	630 V AC/DC	1000 V AC/DC (according to IEC 60664–1, IEC 61984), 600 V (accordig to UL 1059)
Rated voltage (signal/24V)	63 V AC/DC	-
Rated current (power)	14 A	34 A at 40°C (according to IEC 60664–1, IEC 61984), 33 A at 40°C (according to UL 1059)
Rated current (signal/24V)	3.6 A	-
Rated impulse voltage (power)	6.0 kV	8.0 kV
Rated impulse voltage (signal/24V)	1.5 kV	-
Contact resistance	< 5 mΩ	4.5 mΩ
Insulation resistance	-	≥ 100 MΩ (according to IEC 60512)
Insulation group	-	II
Mechanical data		
Accessories type	Connectors	Connectors

Installation size	itec® (Series 915)	Pitch dimension 7.62 mm
Connector type	plug	plug
Configuration	straight	30°
Contact type	female	female
Number of positions (face)	Power: 3+PE, Signal: 5	4-pin
Wire termination	crimp connection	Push-in
Mating cycles	500	25
Way of locking	bayonet	flange and screw
Weight	0.035 kg (0.0772 lb)	0.029 kg (0.0640 lb)
Body color	black, similar to RAL 9011	black, similar to RAL 9011
Body material	zinc diecast/plastic	PA GF, UL 94 V-0
Seal	FKM	-
Clamp ring	brass/nickel plated	-
Contact carrier material	PBT, PA, UL 94 V-0	PA GF, UL 94 V-0
Contact material	brass/gold plated	copper alloy
Max. wire cross-section	-	AWG24...AWG8 (0.5 mm^2...10 mm^2)
Environmental data		
Special features	Max. height for operation 2000 m	-
Shock resistance	30 g (conforms to EN 60060-2-27), 11 ms; 18 shocks per direction, 3 axes	-
Vibration resistance	10 g (conforms to EN 60068-2-27), 50 Hz...2000 Hz; 1 Octave/min.; 10 cycles per axis	-
Ambient temperature (operation)	-20...+130°C, -4...+266°F	-50...+125°C, -58...+257°F
Protection rating	IP66/67 in screwed condition	IP20
Pollution level	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3
UL	yes, UL E-file number: E247738	-
Overvoltage category	3 (according to VDE 0110/EN61984 part 6.19.2.2)	3

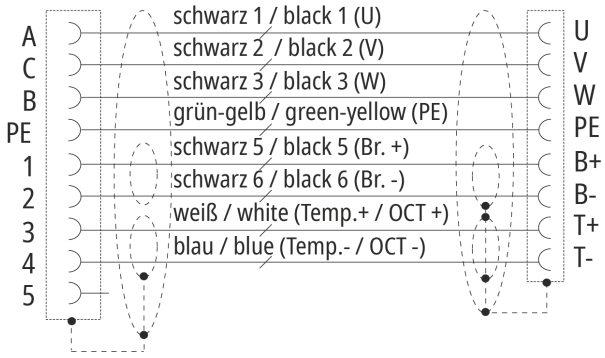
Cable

Electrical data	
Operating voltage	max. 1000 V AC (UL), Uo/U 600/1000 V (VDE)
Insulation resistance	≥ 500 MΩ * km (DIN EN 50395)
Mutual capacitance	Signal: 45 ± 15 pF/m (at 800 Hz according to EN 50289-1-5)
Wire resistance (power)	≤ 19.5 Ω/km (DIN EN 50395)
Wire resistance (signal/24V)	≤ 55.0 Ω/km (DIN EN 50395)

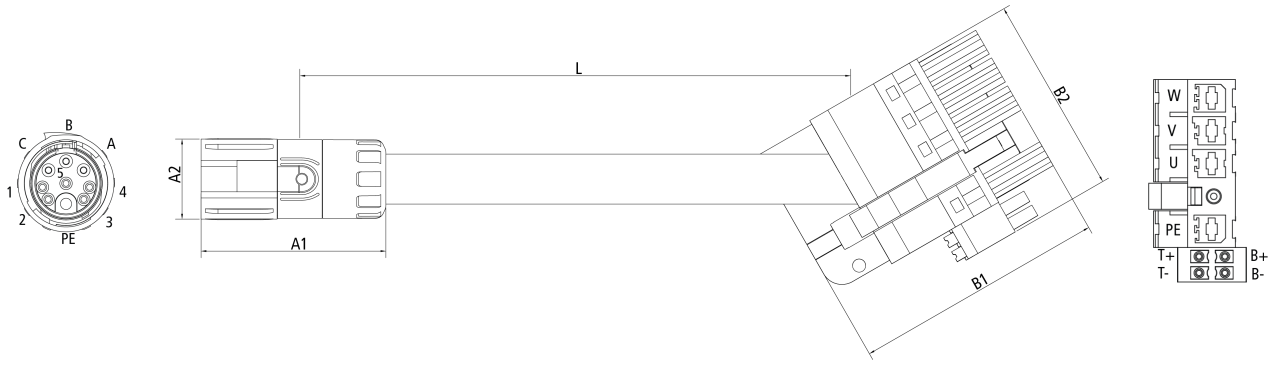
Wire resistance (brake)	≤ 26.0 Ω/km (DIN EN 50395)
Characteristic impedance	Signal: 110 Ω ± 10 Ω (10 MHz) acc. to EN50289-1-11
Dielectric strength wire/wire (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Dielectric strength wire/shield (power)	4 kV 50 Hz 5 min. (DIN VDE 0472 T.509C)
Mechanical data	
Cross-section (power)	1.00 mm² (approx. AWG18)
Cross-section (signal)	AWG22 (approx. 0.34 mm²)
Cross-section (brake)	0.75 mm² (AWG18)
Outer cable diameter	12.0 mm ± 0.2 mm (0.472" ± 0.0079")
Min. bending radius, moved in drag-chain	12 x outer cable diameter
Min. bending radius, fixed installation	5 x outer cable diameter
Weight	215 kg/km (144.459 lb/1000 ft)
Conductor material	copper bare
Optical covering factor of shielding	≥ 90%
Use	suitable for torsion/robotic application
Max. acceleration	30 m/s² by 5 m travel distance 15 m/s² by 10 m travel distance 5 m/s² by 20 m travel distance
Max. speed	4 m/s
Max. travel distance	20 m (horizontal) 5 m (vertical)
Max. number of cycles	2 million
Jacket color	orange
Material jacket	TPU (thermoplastic polyurethane)
Wire insulation material	PP (polypropylene)
Printing color	black
Torsion angle in °/m	max. ± 180°/m
Max. tensile load, dynamic	20 N/mm²
Max. tensile load, static	50 N/mm²
Environmental data	
Operation temperature range, moved	-30...+80°C, -22...+176°F; in drag-chain with mechanical strain: -20...+60°C, -4...+140°F
Operation temperature range, fixed installation	-40...+80°C, -40...+185°F
Oil resistance	according to DIN EN 60811-404
Flame-retardant	according to IEC 60332-1-2
CFC-free	yes
Halogen-free	according to DIN VDE 0472 part 815
Silicone-free	yes

RoHS compliant	yes
Approvals	UL758 (AWM) Style 21223 (jacket) and Style 10492 (core)

Pin assignment



Dimensions



A1	44.00 mm
A2	19.00 mm
B1	60.00 mm
B2	47.00 mm

Notes

- Depending on the cable length (L), the following length tolerances apply: ± 2-3%
- Illustrations similar
- The last three digits of the ordering information is the cable length in decimeters, e.g. ZK4xxx-xxxx-x020 = cable length 2.00 m

Suitable for operation with TwinSAFE SBC/SBT.

Ordering information	Length
ZK4800-8062-0010	1.00 m
ZK4800-8062-0020	2.00 m
ZK4800-8062-0030	3.00 m

ZK4800-8062-0040	4.00 m
ZK4800-8062-0050	5.00 m
ZK4800-8062-0060	6.00 m
ZK4800-8062-0070	7.00 m
ZK4800-8062-0080	8.00 m
ZK4800-8062-0090	9.00 m
ZK4800-8062-0100	10.00 m
ZK4800-8062-0110	11.00 m
ZK4800-8062-0120	12.00 m
ZK4800-8062-0130	13.00 m
ZK4800-8062-0140	14.00 m
ZK4800-8062-0150	15.00 m
ZK4800-8062-0160	16.00 m
ZK4800-8062-0170	17.00 m
ZK4800-8062-0180	18.00 m
ZK4800-8062-0190	19.00 m
ZK4800-8062-0200	20.00 m
ZK4800-8062-0210	21.00 m
ZK4800-8062-0220	22.00 m
ZK4800-8062-0250	25.00 m
ZK4800-8062-0270	27.00 m

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